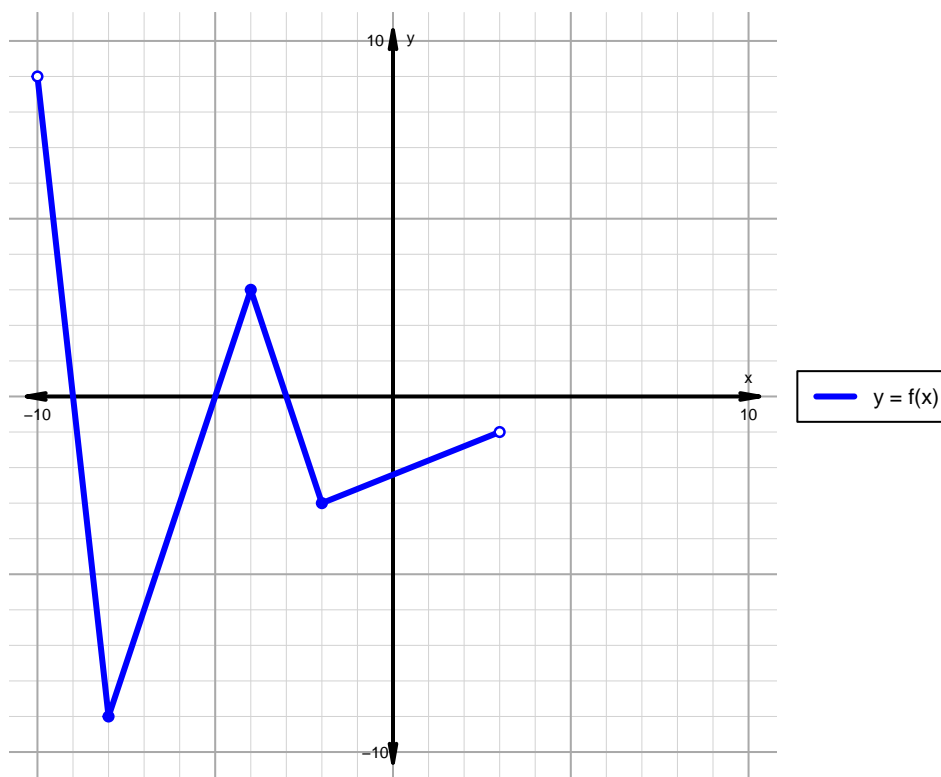


Name: _____

Date: _____

Intervals, Transformations, and Slope Practice (version 13)

1. The function f is graphed below.

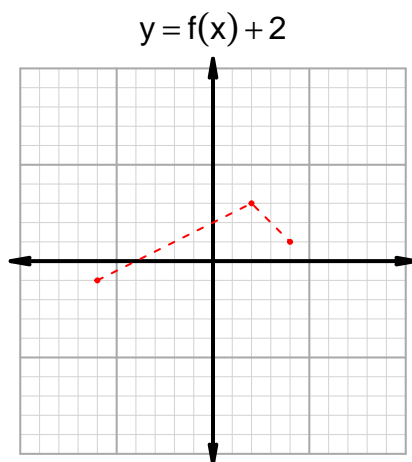
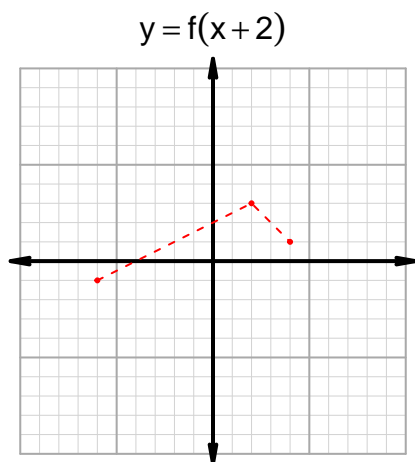
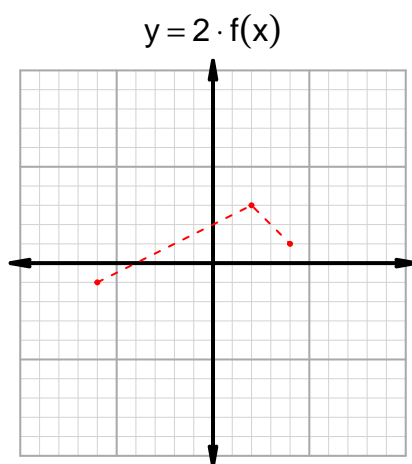
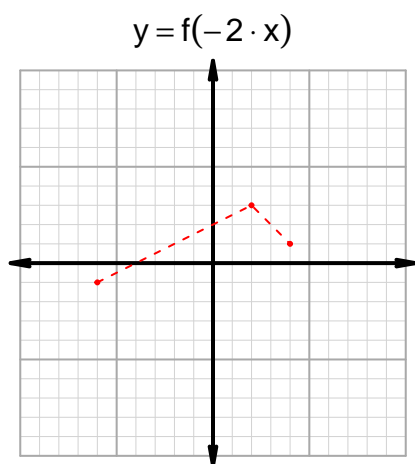


Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

| Feature | Where |
|------------|-------|
| Positive | |
| Negative | |
| Increasing | |
| Decreasing | |
| Domain | |
| Range | |

Intervals, Transformations, and Slope Practice (version 13)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 21$ and $x_2 = 66$. Express your answer as a reduced fraction.

| x | $g(x)$ |
|-----|--------|
| 21 | 67 |
| 66 | 92 |
| 67 | 66 |
| 92 | 21 |